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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,494	12/19/2001	Norbert Dreer	SB-488	9282

7590

12/05/2003

LERNER AND GREENBERG, P.A.  
Post Office Box 2480  
Hollywood, FL 33022-2480

EXAMINER
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CRANE, DANIEL C

ART UNIT	PAPER NUMBER
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3725

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/026,494

Applicant(s)

DREER ET AL.

Examiner

Daniel C Crane

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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## **RECONSIDERATION**

Upon further review of this application, the claims have been found to be improper because of clarity problems. Further, the examiner has become aware of pertinent art applicable to the claims. It is regretted that the following had not be applied previously.

The finality of the previous Office Action is withdrawn.

## **REJECTION OF CLAIMS ON FORMAL MATTERS**

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure is not descriptive of a tool for hot forming copper and copper alloys where the tool body is formed to receive copper or copper alloy and a tungsten/heavy metal alloy. As worded, these claims are merely directed to a tool that can receive copper or copper alloy and a tungsten/heavy metal alloy. The disclosure does not provide any details of a tool that can accommodate these three metals, e.g., copper or copper alloy and tungsten/heavy metal alloy

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (1) Claims 1-5 are further objected to because the wording of claim 1 is confusing as to the claimed embodiment. In this regard, it is unclear whether the tool receives three metals (copper or copper alloy and tungsten/heavy metal alloy) or receives two metals (copper or copper alloy) and is made of tungsten/heavy metal. (2) Furthermore, it is unclear whether the tool is for handling "in the solid state" copper or copper alloys or for handling copper (not necessarily in the solid state?) or copper alloy in the solid state. Clarification is required.

#### **REJECTION OF CLAIMS OVER PRIOR ART**

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips (3,680,354) in view of Grierson (3,988,118). Phillips makes evident conventional hot extruding or drawing dies or tools made of tungsten and chromium steels for the purpose of extruding or drawing copper rod or tubing. Applicants' attention is directed to the first paragraph of Phillips under the heading of BACKGROUND OF THE INVENTION (column 1) where this is taught. As taught, these conventional dies exhibit cracking and washout of the die contour. Grierson discloses that the object of his invention is to provide a die or tool material of tungsten, chromium and remainder of a binder material as a "shaping surface of a shaping member for high temperature forming of metals" (claim 2 and claim 5) that is resistant to cracking (see column 2, lines 13 and 14) and has "low surface roughness after continued operation" (column 2, lines 16 and 17). It would have been obvious to the skilled artisan at the time of the invention to

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have modified conventional hot extrusion or drawing dies taught by Phillips by using the specific tool materials taught by Grierson for the above noted motivation. The burden is on applicants to show that any materials not listed in the claims and allegedly taught by the prior art materially effect the overall composition of the claimed material.

## COMMENTS

As to the applicability of the first paragraph rejection under 35 USC 112, this has been made because the original disclosure does not elaborate on a tool that can receive copper or copper alloy and tungsten/heavy metal alloy. It appears that the claim is improperly worded. Further, the following suggestions are made to overcome the second paragraph 35 USC 112 rejection. The following suggestion would overcome the two 35 USC 112 rejections:

Claim 1. A tool for hot-forming copper and copper alloys, comprising a tool body formed to receive in the solid state copper or copper alloy [in the solid state, and], the tool body comprising a tungsten/heavy metal alloy consisting essentially of 80 to 89.9% by weight of tungsten, 2 to 7% by weight of chromium, and a remainder of a binder metal.

Claim 6. In a method of hot-forming copper and copper alloys, the improvement which comprises providing in the solid state one of the copper and copper alloys [in the solid state] and subjecting in the solid state the copper or copper alloy [in the solid state] to a tungsten/heavy metal alloy consisting of 80 to 89.9% by weight of tungsten, 2 to 7% by weight of chromium, and a remainder of a binder metal.

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Claim 8. In a tungsten alloy configured for hot-forming in a solid state copper and copper alloys, the improvement which comprises an alloy formed of 80 to 89.9% by weight of tungsten, 2 to 7% by weight of chromium, and a remainder of a binder metal material, bound to form a tool for receiving in the solid state copper or a copper alloy and hot-forming in the solid state copper and copper alloys [in the solid state].

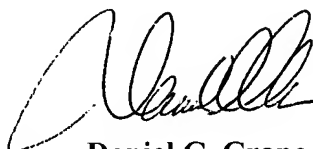
## INQUIRIES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner D. Crane whose telephone number is **(703) 308-1870**. The examiner's office hours are 6:30AM-5:00PM, Tuesday through Friday. The examiner's supervisor, Mr. Allen Ostrager, can be reached at **(703) 308-3136**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(703) 308-1148**.

Documents related to the instant application may be submitted directly to Group 3700 by facsimile transmission at all times. Applicant(s) is(are) reminded to clearly mark any transmission as "DRAFT" if it is not to be considered as an official response. The Group 3725 Facsimile Center number is **(703) 305-3579**.

DCCrane  
December 1, 2003



**Daniel C. Crane**  
Primary Patent Examiner  
Group Art Unit 3725



**ALLEN OSTRAGER**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700